

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-5, 7-13, 15 and 17 are pending in the present application. Claims 1-5, 7-13, 15 and 17 have been amended to address cosmetic matters of form. No new matter is added.

By way of summary, the Official Action presents the following issues: Claims 1-5, 7-15 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Baum in view of Sakoda et al. (U.S. Patent 6,532,223, hereinafter Sakoda).

REJECTIONS UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 1-5, 7-15 and 17 under 35 U.S.C. § 103 as being unpatentable over Baum in view of Sakoda. The Official Action contends that Baum describes all of the Applicants' claimed features with the exception of a selection of n sub-carriers and inserting common control channel signals therein. However, the Official Action cites Sakoda as describing these more detailed aspects of the Applicants claimed advancements, and states that it would have been obvious, to one of ordinary skill in the art at the time the advancements were made, to combine the cited references for arriving at the Applicants claims. Applicants respectfully traverse the rejection.

Applicants' amended Claim 1 recites, *inter alia*, a channel structuring a method of configuring channels wherein transmission signals are modulated by orthogonal frequency division multiplexing comprising n sub-carriers and multiplexed by time division multiplexing to configure downlink channels, including:

- providing time frames by segmenting a communication channel of said n sub-carriers at every predetermined interval;
- selecting from the n sub-carriers, a predetermined number of sub-carriers for insertion of common control channel signals and common pilot signals; and

inserting a common control channel signal and a common pilot signal into the time frames by time division multiplexing with respect to the selected sub-carriers while ensuring that at least one of the selected sub-carriers has both a common control channel signal and a common pilot signal inserted therein. (emphasis added)

Baum describes, in relation to Figures 4-6, the transmission of synchronization signals in a frame by a plurality of base units. The coordination is based on a pilot code scheme. As shown in Figure 4, based upon the pilot code (i.e., 1-4) a synchronization signal is transmitted during a specific baud interval. Figures 5-6 describe alternative schemes for coordinating the transmission of synchronization signals.¹

Sakoda describes a wireless telephone system in which base stations within a certain area use a same channel as a frequency channel for a control information channel CCH, and the timing of transmission of control information CCHs at the same channel is set differently between at least adjacent base stations. Control information CCH transmitted by each base station is accompanied with information of the transmission timing of a control information CCH in another base station adjacent to a base station (for example information of which frequency channel in which time slot being used to transmit).²

Conversely, in an exemplary embodiment of the Applicants' claimed advancements, time frames are provided by segmenting a communication channel of n sub-carriers at every predetermined interval. A predetermined number of n sub-carriers are selected from the n sub-carriers for insertion of common control channel signals and common pilot signals. A common control channel signal and a common pilot signal are inserted into the time frames by time division multiplexing with respect to at least one of the selected sub-carriers while ensuring that at least one of the selected sub-carriers has both a common control channel signal and a common pilot signal inserted therein.

¹ See Baum at Figs. 4-6; col. 9, line 37 through col. 10, line 58.

² See Sakoda at col. 8, lines 11-23.

While the February 22, 2008 Office Action notes that the cited art utilizes designated time slots, as previously pointed out, Baum does not disclose or suggest any method by which control channel signals are allocated. Nevertheless, in order to advance prosecution, the current claims are amended to identify a correlation between a common pilot signal and a common control channel signal. Indeed, the Sakoda reference describes that each base station utilizes a different CCH of a different frequency channel and at a different time slot. Accordingly, neither Baum nor Sakoda, either alone or in combination, disclose or suggest all of the Applicants' amended claim features.

Accordingly, Applicants respectfully request that the rejection of Claims 1-5, 7-13, 15 and 17 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present application, including Claims 1-5, 7-13, 15 and 17, is patentably distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

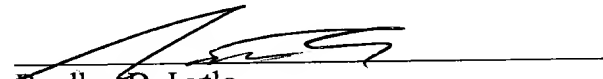
Respectfully submitted,

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